PCN7

PRIMARY PROPHYLAXIS AGAINST FEBRILE NEUTROPENIA WITH PEGFILGRASTIM IS COST-EFFECTIVE COMPARED WITH FILGRASTIM IN NON-HODGKIN'S LYMPHOMA PATIENTS RECEIVING CHOP-21 IN SPAIN

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OBJECTIVES: Primary prophylaxis with granulocyte-colony stimulating factors, used in the first and subsequent cycles of chemotherapy, is recommended by the 2006 ASCO and EORTC clinical guidelines when the overall risk of febrile neutropenia (FN) is ≥20%. Pegfilgrastim effectively reduces the risk of FN with a single injection per cycle compared with 11 injections on average for filgrastim as observed in clinical trials. The study objective was to evaluate the cost-effectiveness of primary prophylaxis with pegfilgrastim versus filgrastim in patients with aggressive non-Hodgkin's lymphoma (NHL) receiving CHOP-21 chemotherapy in Spain. **METHODS:** A decision-analytic model was constructed from a health care payer's perspective with a life-time model horizon. Costs (2006 value) including drugs, drug administration, FN-related hospitalisations, and medical costs subsequent to FN hospitalisations were acquired from official price lists or literature. Other model inputs including FN risk, FN case-fatality, relative dose intensity (RDI), the impact of RDI on survival, and health utilities were based on data from a comprehensive literature review and expert panel validation. Using data from a meta-analysis, we estimated that the absolute risk of FN in patients receiving pegfilgrastim decreased from 19.6% to 13.1% (6.5 percentage points) versus 11-day filgrastim. NHL mortality and all-cause mortality were obtained from official statistics. Sensitivity analyses were performed on key parameters. **RESULTS:** The incremental cost-effectiveness ratio (ICER) was €185 per FN event avoided or €2 per 1% decrease in absolute risk of FN. Pegfilgrastim achieved 0.06 more discounted life-years or 0.053 more discounted quality-adjusted life-years (QALY) at a minimal cost increase of €12 per person (€6550 versus €6538), yielding an ICER of €195/LYG and €218/QALY saved. Results were most sensitive to the relative risk of FN for 11-day filgrastim versus pegfilgrastim. **CONCLUSION:** In Spain, pegfilgrastim was cost-effective compared with 11-day filgrastim in NHL patients using CHOP-21.

PCN8

A COST-CONSEQUENCE ANALYSIS OF DARBEPOETIN ALFA ADMINISTERED EVERY 3 WEEKS (Q3W_DA) COMPARED TO WEEKLY EPOETIN ALFA (QW_EA) OR EPOETIN BETA (QW_EB) IN PATIENTS WITH CHEMOTHERAPY-INDUCED ANEMIA (CIA): THE ITALIAN CASE

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OBJECTIVE: Anemia, a common chemotherapy complication, is often treated with erythropoiesis-stimulating agents (ESAs). The objective of this study was to assess, based on the results of a European retrospective observational study, the cost consequence of Q3W_DA administration (500 µg) compared to QW_EA or QW_EB at the European label doses, from an Italian healthcare perspective. **METHOD:** A decision-tree model making explicit the conduct of the patients in the 16-week observational study (drug administrations, transfusion and response to treatment) was developed in MSExcel. Transition probabilities, average hemoglobin value over treatment period and number of blood transfusions were extracted from the observational study. Unit costs were applied to medical resources used (red blood cells packs, healthcare professional visits, hospital stays, diagnostic tests). These resources as well as the probabilities of a drug being administered in different settings were estimated according to consultations with Italian oncologists. Medical costs were extracted from official sources (Tariffari, Ministero della Salute) and adjusted to 2007€. A 5000-replications probabilistic sensitivity analysis was performed with @RISK® using distributions for probabilities (binomial), medical resources used (triangular) and outcome measures (normal). **RESULTS:** Between treatment groups, hemoglobin differences were: Q3W_DA minus QW_EA, 0.13g/dL (95%CI: −0.152; 0.415) and Q3W_DA minus QW_EB, 0.19g/dL (95%CI: −0.0117; 0.385). The cost was lower compared to QW_EA (−310€ [95%CI: −620; −9]) and slightly higher compared to QW_EB (84€ [95%CI: −113; 269]). Probabilistic sensitivity analysis revealed for Q3W_DA 80% of the replications vs. QW_EA and 18% vs. QW_EB with better hemoglobin values and lower costs (dominant); 2% vs. QW_EA and 79% vs. QW_EB with slightly higher costs and better hemoglobin values. **CONCLUSION:** This analysis provides real-life information to decision makers about the costs and consequences of Q3W_DA compared to QW_EA and QW_EB. A decision in favor of Q3W_DA has the highest probability to be beneficial from the Italian healthcare perspective.

PCN9

COST-EFFECTIVENESS OF SUPERFICIAL BLADDER CANCER SURVEILLANCE IN WHICH CYSTOSCOPY IS PARTLY REPLACED BY MICROSATELLITE ANALYSIS

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OBJECTIVES: To assess the cost-effectiveness of a surveillance strategy in which cystoscopy is partly replaced by microsatellite analysis (MA) to identify loss of heterozygosity (LOH) in urine samples versus conventional cystoscopy-based surveillance in patients treated for superficial bladder cancer. **METHODS:** A semi-Markov model was used, which was implemented in TreeAge Software. Data from the randomised study (n = 448) and literature were used. The reference case was a man aged 65, and the time horizon was two years. A societal perspective was adopted. Sensitivity analyses were performed to evaluate the effects of varying costs and effects. **RESULTS:** The sensitivity of MA was 0.56 (cystoscopy 0.95), which was too low to compensate for the ability to detect recurrent tumors in the upper urinary tract (which are missed by cystoscopy). The MA test also had worse specificity than cystoscopy (0.74 vs. 0.97). The control arm hence led to better outcomes than the test arm, and lower costs (€2691 vs €3785 per capita over the course of two years). Although the Markov model indicated that the control arm dominated the test arm, patient preferences for the urinary test may be strong, accepting a slightly worse medical outcome. **CONCLUSION:** Over the course of two years, surveillance in which cystoscopy is partly replaced by current MA does not provide a cost-effective alternative to the conventional surveillance. The search for a surveillance test, combining similar or better diagnostic accuracy than cystoscopy with lower patient burden, needs to be continued.